REMARKS/ARGUMENTS

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al U.S. Patent Application Publication No. 2002/0154262 in view of Liu et al U.S. Patent Application Publication No. 2001/0050745. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al in view of Liu et al and Aoyama et al U.S. Patent Application Publication No.2003/0043327. Claims 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al U.S. Patent Application Publication No. 2002/0154262 in view of Lee et al U.S. Patent Application Publication No. 2004/0109120. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al in view of Lee et al and Aoyama et al U.S. Patent Application Publication No. 2003/0043327.

1. Objections of Specification:

The disclosure is objected to because of the following informalities:

Paragraphs 0021-0026, 0029 and 0032 presently read as "Fig."; please insert the number figure, such as "Fig. 5", "Fig. 6", etc. properly.

Appropriate correction is required.

Response:

The applicant acknowledges the errors of missing numbers of Figures, which result from format transformation of documents. Paragraphs [0020]-[0027], [0029], [0030] and [0032] are therefore corrected as in the **Amendments to the Specification section.** With the above-cited corrections to the specification, the applicant respectfully requests reconsideration of the specification.

2. Rejections of Claims 1-11 under 35 US.C. 103(a):

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al U.S. Patent Application Publication No. 2002/0154262 in view of Liu et al U.S. Patent Application Publication No. 2001/0050745 for reasons of record, as recited on pages 2-5 of the above-indicated Office action.

Response:

Claim 1 of this application has been amended as shown in the **Listing of Claims** section. No new matter is entered. The amended claim 1 is listed as below in a clear version:

Claim 1: An in-plane switching mode liquid crystal display (IPS-LCD) comprising:

a lower substrate;

a plurality of parallel scan lines and a plurality of data lines with equal distances positioned on the lower substrate, wherein the scan lines and the data lines are arranged in a crossing manner to form a pixel matrix, any two of the adjoining scan lines and any two of the adjoining data lines being crossed to define a pixel;

a plurality of first electrodes formed in each of the pixels, wherein each of the first electrodes contains a plurality of first electrode offshoots, *the first electrode offshoots being arranged parallel with each other and at two different planes on the lower substrate, wherein at least one of the first electrode offshoots on the higher plane overlaps another first electrode offshoot on the lower plane, and the two overlapping first electrode offshoots have same shapes*;

an insulation layer covering the scan lines and the first electrode offshoots at the lower plane;

a plurality of second electrodes formed in each of the pixels, wherein each of the second electrodes covers at least one of the first electrode offshoots in each of the pixels;

an upper substrate formed in parallel with and opposite to the lower substrate; and

a plurality of liquid crystal molecules filled between the upper substrate and the

lower substrate;

wherein an overlapping portion of each of the first electrode offshoots and each of the second electrode serves as a storage capacitor of each of the pixels.

According to the amended claim 1 and referring to Fig.8 and paragraph [0032], the IPS-LCD 200 comprises a plurality of scan lines and data lines, a plurality of first electrodes having first electrode offshoots 212a, 212b, 212c, 212d, 212e, 212f, a plurality of second electrodes having second electrode offshoots 216a, 216b, and an insulation layer 24. Some of the first electrode offshoots 212d, 212e, 212f are positioned at a different plane from the plane where the first electrode offshoots 212a, 212b, 212c. In addition, the first electrode offshoots 212d, 212e, 212f above the insulation layer 24 overlaps the first electrode offshoots 212a, 212b, 212c at the lower plane, wherein all of the first electrode offshoots 212a, 212b, 212c, 212d, 212e, 212f have the same shapes. Accordingly, *the first electrode offshoots are parallel with each other and at different planes on the lower substrate*, which are separated by an insulation layer. *Under this design, horizontal electric fields are produced by the adjoining second electrode offshoots 216a, 216b and first electrode offshoots 212d, 212e, 212f, which effectively shorten the responding time of the liquid crystal molecules 206 than the first and second embodiment of the present invention* (para.[0032] lines 6-11).

Referring to the application of Yamakita et al, they disclose an LCD having a plurality of common electrodes 3 that has a plurality of common electrode offshoots 3a, 3b, 3c and a plurality of pixel electrodes 4 that has a plurality of pixel electrode offshoots 4a and 4b. *Even though the common electrode 3 has another common electrode offshoot 3d in another plane, the common electrode offshoot 3d does not overlap one of the common electrode offshoots 3a, 3b, 3c and does not have the same shapes as that of the common electrode offshoots 3a, 3b, 3c. Accordingly, the common electrode offshoot 3d cannot provide a horizontal field with the pixel electrode 4 to effectively shorten the*

responding time in a pixel.

Referring to the application of Liu et al, they disclose a LCD having common electrodes 120 and pixel electrodes 144, wherein the common electrodes 120 have common electrode offshoots 121a, 122a, 123a and the pixel electrodes 144 have pixel electrode offshoots 145a and 146a in Fig.8. Also, *Liu et al never teach forming the common electrode offshoot 121a, 122a, 123a in different planes or forming the pixel electrode offshoots 145a and 146a in different planes such that at least one of the common electrode offshoot and at least one of the pixel electrode offshoot are positioned at the same plane to provide horizontal electric fields for shorten responding time.*

In conclude, neither Yamakita et al nor Liu et al teach that the first electrode offshoots are arranged parallel with each other and at two different planes, and that at least one of the first electrode offshoots on the higher plane overlaps another first electrode offshoot on the lower plane with the same shapes described in the amended claim 1 of this application. Therefore, the combination of references of Yamakita et al and Liu et al cannot obtain all the limitations in the amended claim 1, and the amended claim 1 should be allowable. Reconsideration of the amended claim 1 is therefore respectfully requested.

Claims 2-11 are dependent upon claim 1, thus they should be allowable if the amended claim 1 is allowable. Reconsideration claims 2-11 is hereby requested.

3. Rejection of Claim 12 under 35 U.S.C. 103(a):

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al in view of Liu et al as discussed above, and further in view of Aoyama et al U.S. Patent Application Publication No.2003/0043327.

Response:

Since claim 12 is dependent upon claim 1, it should be allowed if the amended claim 1 is allowable. Reconsideration of claim 12 is politely requested.

4. Rejections of claims 13-23 under 35 U.S.C. 103(a):

Claims 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al U.S. Patent Application Publication No. 2002/0154262 in view of Lee et al U.S. Patent Application Publication No. 2004/0109120 for reasons of record, as recited on pages 6-9 of the above-indicated Office action.

Response:

Claim 13 has been amended as shown in the **Listing of Claims** section. No new matter is entered. The amended claim 13 includes the characteristic that *the first electrode of an IPS-LCD comprises a plurality of offshoots parallel with each other in each pixel at two different planes, wherein at least one of the first electrode offshoots on the higher plane covers another first electrode offshoot on the lower plane, and the two overlapping first electrode offshoots have same shapes.*

As cited in the 2nd part of this section, Yamakita et al never teach providing a *common electrode offshoot on a lower or higher plane covering another common electrode offshoots.* Similarly, Lee et al disclose a plurality of capacitor electrodes 56 below the second electrodes 64 in Fig.7B, but never disclose that a plurality of first or second electrode have a plurality of electrode offshoots positioned at two planes in the figures or specification. Therefore, both Yamakita et al and Lee et al fail to disclose all the limitations in the amended claim 13, thus the Applicant believe the amended claim 13 should be allowable. Reconsideration of the amended claim 13 is respectfully requested.

Claims 14-23 are dependent upon claim 13, and they should be allowed if the

amended claim 13 is allowable. Reconsideration of claims 14-23 is thereby requested.

5. Rejection of Claim 24 under 35 U.S.C. 103(a):

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita et al in view of Lee et al and Aoyama et al U.S. Patent Application Publication No. 2003/0043327 in reasons of record, as cited on page 10 of the Office Action identified-above.

Response:

Claim 24 is dependent upon claim 13. Therefore, claim 24 should be allowable if the amended claim 13 is allowable. Reconsideration of claim 24 is politely requested.

6. Introduction of New Claims 25-30:

Claims 25-30 are introduced, wherein claims 25-27 are dependent upon claim 1 and claims 28-30 are dependent upon claim 13. No new matter is entered.

Claims 25 and 28 define that the overlapping first electrode offshoots 212d, 212a in different planes and having the same shapes are spaced apart by the insulation layer 24, as shown in Fig.8. Applicant respectfully asserts that none of the cited references disclose the insulation layer separates their common electrode offshoots having the same shapes and therefore claims 25 and 28 should be allowable.

Claims 26 and 29 define that some first electrode offshoots 212d, 212e, 212f are positioned at the same plane with the plane where the second electrodes 216a, 216b are positioned since they are fabricated through the same processes (Fig.8 and para. [0032], lines 21-24) Claims 27 and 30 define some first electrode offshoots 212a, 212b, 212c are positioned at the same plane with the plane where the capacitor electrodes 214 and the scan lines are positioned since they are fabricated through the same processes (Fig.8, para.

[0032], lines 18-21, and para. [0031], lines 9-15). Applicant respectfully asserts that none of the cited references disclose all the limitations in claims 26-27 and 29-30 and believe claims 26-27 and 29-30 are allowable. Accordingly, acceptance and considerations of new claims 25-30 are respectfully requested.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,

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